



MUSIC FOR A *Sound Mind & Body*

When you listen to or create music, it affects how you think, feel, move, and more. Scientists are exploring the different ways music stimulates healthier bodies and minds. Modern technologies are helping researchers learn more about how the brain works, what parts of the brain respond to music, and how music might help ease symptoms of certain diseases and conditions.

MUSIC & YOUR BRAIN

The brain is a complex processing hub. It's the control center of your nervous system, the network of nerve cells that carry messages to and from your body and the brain. A healthy brain tries to make sense of the world around you and the constant information it receives, including sound and music.

Music and other sounds enter the ear as sound waves. These create vibrations on our eardrum that are transformed into electrical signals. The electrical signals

travel up the auditory nerve to the brain's auditory cortex. This brain area interprets the sound into something we recognize and understand.

But music affects more than the brain areas that process sound. Using techniques that take pictures of the brain, like fMRI, scientists have found that music affects other brain areas. When music stimulates the brain, it shows up on brain images as flickers of bright light. Studies have shown that music "lights up" brain areas involved in emotion, memory, and even physical movement. There's also evidence that music may be helpful for people with other health conditions, including Alzheimer's disease, dementia, traumatic brain injury, stroke, aphasia, autism, and hearing loss.

MUSIC & YOUR MIND

Playing a musical instrument engages many parts of the brain at once. This can especially benefit children and



teens, whose brains are still developing. Introducing music to young kids can positively influence their ability to focus, how they act, and language development.

Being musical may also protect you from hearing loss as you age. We naturally lose our hearing ability over time. In particular, it becomes harder to hear conversations in a loud environment. But researchers have found that musicians are better at picking out a person's voice in a noisy background.

MUSIC & HEALING

Listening to and making music on your own can bring health benefits. But some people may also benefit from the help of a board-certified music therapist. Music therapists are trained in how to use music to meet the mental, social, and physical needs of people with different health conditions.

Music therapy can take many forms that go beyond listening to music. Music therapists can use certain parts of music, like the rhythm or melody, to help people regain abilities they've lost from a brain injury or developmental

disability. For example, a person who's had a stroke may be able to sing words, but not speak them.

Music therapists also rely on the social qualities of music. Shared musical experiences can help a family member connect with a loved one who has dementia. Music can also be used to help young people with behavior disorders learn ways to manage their emotions.

IS MUSIC FOR EVERYONE?

Music can offer many health benefits, but it may not be helpful for everyone. Traumatic injuries and brain conditions can change the way a person perceives and responds to music. Some people may find some types of music overstimulating. Others may find that certain music brings up emotional or traumatic memories.

As scientists continue to learn more about music and the brain, try striking a chord for your health. Whether you're looking to boost your mood, stay connected to others, or improve symptoms of a health condition, add a little music to your life.

ADDING MORE MELODY

Here are some quick and simple ways to add more music into your life:

- » Listen to music during the day, like on your way to work or during exercise.
- » Sing and dance while you're doing chores or cooking meals.
- » Play a musical instrument. Consider taking lessons or joining friends to make music.
- » Attend concerts, plays, and other community music activities in your area.
- » Encourage your kids to listen to music, sing, play an instrument, or participate in music programs at school.
- » Ask your doctor if music therapy is right for you. Consider working with a board-certified music therapist to improve your health.

